

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): ~~A cationic dye~~ Cationic dyes of the general formula I
- $$\text{CAT}^+ \text{Y}^- \quad (\text{I}),$$

wherein

CAT⁺ is a cation selected from azine, xanthen, polymethine, styryl, azo, tetrazolium, pyrylium, benzopyrylium, thiopyrylium, benzothioopyrylium, thiazine, oxazine, triarylmethane, diarylmethane, acridine, quinoline, isoquinoline, and quaternized azafluorenone dyes.

~~where~~ Y⁻ is an anion selected from the group CAB⁻, FAP⁻, FAB⁻, and or Im⁻,

~~where~~

CAB⁻ conforms to the general formula (II-1)



and

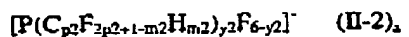
y1 ~~is denotes~~ 1, 2, 3 or 4,

x1 ~~is denotes~~ 0, 1, 2 or 3, and

R⁰ ~~is denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R⁰ may be hydrogen if y1 is >2,

~~where~~

FAP⁻ conforms to the general formula (II-2)



with

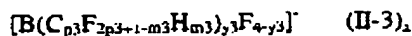
p2 ~~[[.]]~~ is 1 to 20,

m2 ~~[[.]]~~ is 0, 1, 2 or 3, and

y2 ~~[[.]]~~ is 1, 2, 3 or 4,

~~where~~

FAB⁻ conforms to the general formula (II-3)



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with

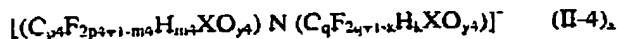
p_3 is 1 to 20,

m_3 is 0, 1, 2 or 3, and

y_3 is 1, 2, 3 or 4,

where

Im' conforms to the general formula (II-4)



and the variables

X is denotes carbon or sulfur,

p_4 is denotes 0 to 20 and $0 \leq m_4 \leq 2p_4+1$,

q is denotes 0 to 20 and $0 \leq k \leq 2q+1$,

y_4 is denotes 1 or 2,

where

m_4 is is 0 if p_4 is 0, and

k is is 0 if q is 0, and

the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F;

with the proviso provides that:

if X is sulfur, y_4 is denotes 2, and if X is carbon, y_4 is denotes 1 and p_4 or $q \geq 1$, and

and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F;

and

CAT^+ is a cation selected from the group of the azine, xanthone, polymethine, styryl, azo, tetrazolium, pyrylium, benzopyrylium, thiopyrylium, benzoethiopyrylium, thiuzine, oxazine, diaryl methane, diaryl methane, acridine, quinoline, isoquinoline or quaternised azafluorenene dyes;

where 3,3'-diethoxyethyl-2,2'-thiadicyanone trifluoromethyltrifluoroborate is excluded.

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2. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of an azine dye.
3. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a xanthene dye.
4. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a polymethine dye.
5. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a styryl dye.
6. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of an azo dye.
7. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a tetrazolium dye.
8. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a pyrylium dye.
9. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a benzopyrylium dye.
10. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a thiopyrylium dye.
11. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a benzothiopyrylium dye.

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12. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a thiazine dye.

13. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of an oxazine dye.

14. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a triarylmethane dye.

15. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ ⁺ is a cation of a diarylmethane dye.

16. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of an acridine dye.

17. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a quinoline dye.

18. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of an isoquinoline dye.

19. (Currently Amended): ~~A dye Dyes~~ according to Claim 1, wherein character-
~~ised in that~~ CAT⁺ is a cation of a quaternary azafluorenone dye

20. (Currently Amended): ~~A dye Dyes~~ according to Claim 4, wherein character-
~~ised in that~~ CAT⁺ is a cation of a cyanine dye.

21. (Currently Amended): ~~A dye Dyes~~ according to Claim 4, wherein character-
~~ised in that~~ CAT⁺ is a cation of a carbocyanine dye.

22. (Currently Amended): ~~A dye Dyes~~ according to Claim 4, wherein character-

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~~ised in that~~ CAT⁺ is a cation of an azacarbocyanine dye.

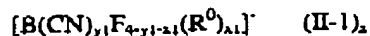
23. (Currently Amended): A dye ~~Dyes~~ according to Claim 4, wherein ~~characterised in that~~ CAT⁺ is a cation of a diazacarbocyanine dye.

24. (Currently Amended): A dye ~~Dyes~~ according to Claim 4, wherein ~~characterised in that~~ CAT⁺ is a cation of a triazacarbocyanine dye.

25. (Currently Amended): A dye ~~Dyes~~ according to Claim 4, wherein ~~characterised in that~~ CAT⁺ is a cation of a hemicyanine dye.

26. (Currently Amended): A dye ~~Dyes~~ according to Claim 4, wherein ~~characterised in that~~ CAT⁺ is a cation of a diazahemicyanine dye.

27. (Currently Amended): A dye ~~Dyes~~ according to claim 1, wherein ~~characterised in that~~ Y⁻ is a cyanoborate of the formula II-1



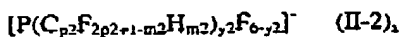
wherein and

y1 is ~~denotes~~ 1, 2, 3 or 4.

11 is ~~denotes~~ 0, 1, 2 or 3 and

R⁰ is ~~denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R⁰ may be hydrogen if y1 is >2.

28. (Currently Amended): A dye ~~Dyes~~ according to claim 1, wherein ~~characterised in that~~ Y⁻ is a fluoroalkylphosphate of the formula II-2



wherein with

p2 is ~~is~~ 1 to 20,

m2 is ~~is~~ 0, 1, 2 or 3 and

y2 is ~~is~~ 1, 2, 3 or 4

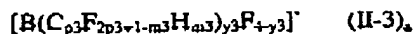
p2: is ~~is~~ 1 to 20,

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m2: ~~0, 1, 2 or 3 and~~

y2: ~~1, 2, 3 or 4.~~

29. (Currently Amended): ~~A dye Dyes~~ according to claim 1, wherein character-
~~ized in that Y' is a fluoroalkylborate of the formula II-3~~



wherein with

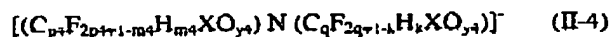
p3 is 1 to 20,

m3 is 0, 1, 2 or 3 and

y3 is 1, 2, 3 or 4;

~~where 3,3'-diethoxyethyl-2,2'-thiadiazobenzene-trifluoromethyltrifluoro-~~
~~borate is excluded.~~

30 (Currently Amended): ~~A dye Dyes~~ according to claim 1, wherein character-
~~ized in that Y' is an imide of the formula II-4~~



wherein and the variables

X is ~~denotes~~ carbon or sulfur,

p4 is ~~denotes~~ 0 to 20 and $0 \leq m4 \leq 2p4+1$,

q is ~~denotes~~ 0 to 20 and $0 \leq k \leq 2q+1$,

y4 is ~~denotes~~ 1 or 2,

m4 is 0 if p4 is 0, and

k is 0 if q is 0,

where m4 = 0 if p4 = 0 and k = 0 if q = 0,

with the proviso that

if X is sulfur, y4 is ~~denotes~~ 2, and if X is carbon, y4 is ~~denotes~~ 1 and p4 or q ≥ 1 ;

~~and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to~~
~~one another by single bonds, where the resultant alkylene chain may in turn be partially or~~
~~fully substituted by F~~

31. (Currently Amended): A process ~~Process~~ for the preparation of a cationic dye

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dyes according to claim 1, said process comprising: ~~characterised in that~~

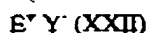
reacting a compound of the general formula XXI



where CAT^+ is a cation selected from the group of the azine, xanthene, polymethine, styryl, azo, tetrazolium, pyrylium, benzopyrylium, thiopyrylium, benzothienopyrylium, thiazine, oxazine, triarylmethane, diarylmethane, acridine, quinoline, isoquinoline or quaternised azafluorenene dyes

wherein A^- denotes Cl^- , Br^- , I^- , BF_4^- , PF_6^- , ClO_4^- , sulfate, tosylate, hydrosulfate, triflate, trifluoroacetate, acetate or oxalate,

is reacted with a compound of the general formula XXII



wherein where Y^- is an anion selected from the group CAB^- , FAP^- , FAB^- or Im^- ,

where CAB^- conforms to the general formula (II-1)



and

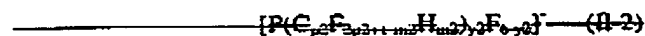
$y1$ denotes 1, 2, 3 or 4;

$x1$ denotes 0, 1, 2 or 3 and

R^u denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkylaryl;

with the condition that R^u may be hydrogen if $y1 \geq 2$;

where FAP^- conforms to the general formula (II-2)



with

$p2$ 1 to 20;

$m2$ 0, 1, 2 or 3 and

$y2$ 1, 2, 3 or 4;

where FAB^- conforms to the general formula (II-3)



with

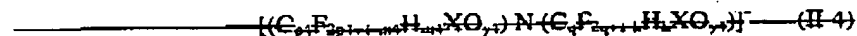
$p2$ 1 to 20;

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m_3 ——— 0, 1, 2 or 3 and

y_3 ——— 1, 2, 3 or 4,

where $[m]^-$ conforms to the general formula (II 4)



and the variables

X ——— denotes carbon or sulfur,

p_4 ——— denotes 0 to 20 and $0 \leq m_4 \leq 2p_4 + 1$,

q_4 ——— denotes 0 to 20 and $0 \leq k_4 \leq 2q_4 + 1$,

y_4 ——— denotes 1 or 2,

where $m_4 = 0$ if $p_4 = 0$ and $k_4 = 0$ if $q_4 = 0$,

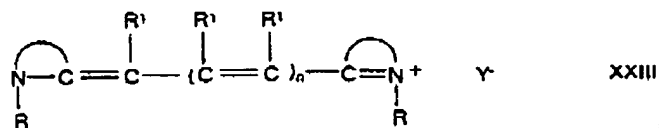
with the proviso

if X is sulfur, y_4 denotes 2 and if X is carbon, y_4 denotes 1 and p_4 or $q_4 \geq 1$,

and where the carbon atoms of the alkyl chain of the formula II 4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F; and

E^+ is a cation selected from cations of the alkali metals, alkaline earth metals or of a metal from group 11 and 12, ammonium, alkylammonium containing C_1 - C_4 -alkyl, phosphonium, alkylphosphonium containing C_1 - C_4 -alkyl, and ~~or~~ guanidinium.

32. (Currently Amended): A process ~~Process~~ for the preparation of carbocyanine dye dyes according to Claim 21, where the carbocyanine dye conforms to the formula XXIII



wherein in which

n ~~is~~ denotes 0, 1, 2, 3, 4 or 5,

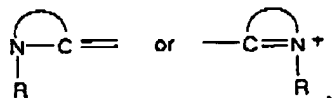
R in each case, independently of one another, ~~is~~ denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl, and

R^1 in each case, independently of one another, ~~is~~ denotes H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl or

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NHC(O)aryl and

the ring system, represented by



is ~~denotes~~ a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, which optionally contains ~~may furthermore contain~~ 1, 2 or 3 N and/or 1 or 2 S or O atoms and ~~in which~~ the heterocyclic radical is optionally ~~may be~~ mono- or polysubstituted by Z,

Z is ~~denotes~~ hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCP₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂

and

~~where~~

Y⁻ is an anion selected from the group CAB⁻, FAP⁻, FAB and/or Im⁻,

~~where~~

CAB⁻ conforms to the general formula (II-1)



and

y1 is ~~denotes~~ 1, 2, 3 or 4,

x1 is ~~denotes~~ 0, 1, 2 or 3, and

R⁰ is ~~denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R⁰ may be hydrogen if y1 is >2,

~~where~~

FAP⁻ conforms to the general formula (II-2)



with

p2 is ~~is~~ 1 to 20,

m2 is ~~is~~ 0, 1, 2 or 3, and

y2 is ~~is~~ 1, 2, 3 or 4,

~~where~~

FAB⁻ conforms to the general formula (II-3)

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with

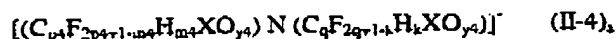
$p3$ $[[\cdot]]$ is 1 to 20,

$m3$ $[[\cdot]]$ is 0, 1, 2 or 3, and

$y3$ $[[\cdot]]$ is 1, 2, 3 or 4,

where

$Im^{\cdot-}$ conforms to the general formula (II-4)



and the variables

X is denotes carbon or sulfur,

$p4$ is denotes 0 to 20 and $0 \leq m4 \leq 2p4+1$,

q is denotes 0 to 20 and $0 \leq k \leq 2q+1$,

$y4$ is denotes 1 or 2,

where

$m4$ is $[[\cdot]]$ 0 if $p4$ is $[[\cdot]]$ 0, and

k is $[[\cdot]]$ 0 if q is $[[\cdot]]$ 0, and

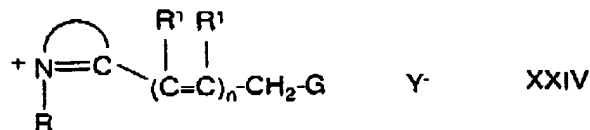
the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F;

with the proviso that

if X is sulfur, $y4$ is denotes 2, and if X is carbon, $y4$ is denotes 1 and $p4$ or $q \geq 1$,

and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F;

said process comprising utilizing characterized in that use is made of a compound of the formula XXIV



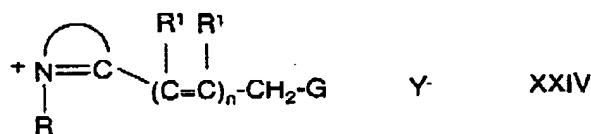
where the ring system, R , R^1 and $Y^{\cdot-}$ have one of the meanings indicated in the case of formula XXIII, and

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n ~~is denotes~~ 0, 1, 2, 3 or 4 and

G ~~is denotes~~ hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R)₂, CONHaryl, C(O)aryl or CONHalkyl.

33. (Currently Amended): A compound according to ~~Compounds of the formula~~ XXIV



where

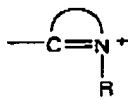
n ~~is denotes~~ 0, 1, 2, 3 or 4,

G ~~is denotes~~ hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R)₂, CONHaryl, C(O)aryl or CONHalkyl,

R ~~is denotes~~ alkyl, alkenyl, cycloalkyl, aryl or heteroaryl,

R¹ ~~is in each case, independently of one another, denotes~~ H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl or NHC(O)aryl, and

the ring system, represented by



~~is denotes~~ a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, optionally containing ~~which may furthermore contain~~ 1, 2 or 3 N and/or 1 or 2 S or O atoms and in which the heterocyclic radical is optionally ~~may be~~ mono- or polysubstituted by Z,

Z ~~is denotes~~ hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl or N(alkyl)₂,

and

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where

Y⁻ is an anion selected from the group CAB⁻, FAP⁻, FAB⁻ and ~~or~~ Im⁻,

where

CAB⁻ conforms to the general formula (II-1)



and

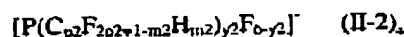
y1 ~~is denotes~~ 1, 2, 3 or 4,

x1 ~~is denotes~~ 0, 1, 2 or 3, and

R⁰ ~~is denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R⁰ may be hydrogen if y1 is >2,

where

FAP⁻ conforms to the general formula (II-2)



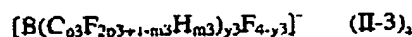
with

p2 ~~is~~ 1 to 20,

m2 ~~is~~ 0, 1, 2 or 3, and

y2 ~~is~~ 1, 2, 3 or 4,

where FAB⁻ conforms to the general formula (II-3)



with

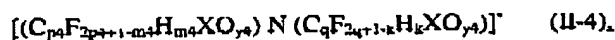
p3 ~~is~~ 1 to 20,

m3 ~~is~~ 0, 1, 2 or 3, and

y3 ~~is~~ 1, 2, 3 or 4,

where

lin⁻ conforms to the general formula (II-4)



and the variables

X ~~is denotes~~ carbon or sulfur,

p4 ~~is denotes~~ 0 to 20 and $0 \leq m4 \leq 2p4+1$,

q ~~is denotes~~ 0 to 20 and $0 \leq k \leq 2q+1$,

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y4 ~~is denotes~~ 1 or 2.

where

m4 ~~is~~ $[[=]]$ 0 if p4 ~~is~~ $[[=]]$ 0, and

k ~~is~~ $[[=]]$ 0 if q ~~is~~ $[[=]]$ 0,

where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, and the resultant alkylene chain may in turn be partially or fully substituted by F;

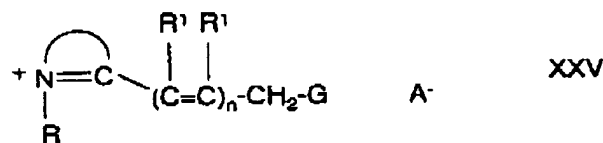
with the proviso provisos that:

if X is sulfur, y4 ~~is denotes~~ 2, and

if X is carbon, y4 ~~is denotes~~ 1 and p4 or q \geq 1;

~~and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.~~

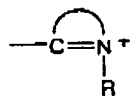
34 (Currently Amended): A process ~~Proves~~ for the preparation of a compound ~~the compounds of the formula XXIV~~ according to Claim 33, said process comprising reacting ~~characterized in that~~
a compound of the formula XXV



in which

A⁻ ~~is denotes~~ Cl⁻, Br⁻, I⁻, BF₄⁻, PF₆⁻, ClO₄⁻, sulfate, tosylate, hydrosulfate, triflate, trifluoroacetate, acetate or oxalate,

the ring system, represented by



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~~is denotes~~ a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having 5 to 13 ring members, which ~~optionally further contains may furthermore contain~~ 1, 2 or 3 N and/or 1 or 2 S or O atoms, and in which the heterocyclic radical ~~is optionally may be~~ mono- or polysubstituted by Z,

Z ~~is denotes~~ hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃, COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl, or N(alkyl)₂,

n ~~is denotes~~ 0, 1, 2, 3 or 4,

R ~~is denotes~~ alkyl, alkenyl, cycloalkyl, aryl or heteroaryl,

R¹ ~~is in each case, independently of one another, denotes~~ H, Cl, Br, I, alkyl, partially or fully chlorinated alkyl, alkenyl, cycloalkyl, aryl, heteroaryl, Oalkyl, Oaryl, Salkyl, Saryl, NHalkyl, N(alkyl)₂, C(O)H, C(O)alkyl, C(O)aryl, CN, N=N-aryl, P(aryl)₂, NHC(O)alkyl, or NHC(O)aryl, and

G ~~is denotes~~ hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R)₂, CONHaryl, C(O)aryl, or CONHalkyl,

~~is reacted~~ with a compound of the formula XXVI



in which

E⁺ is a cation of the alkali metals, alkaline earth metals or of a metal from group 11 and 12, ammonium, alkylammonium containing C₁-C₄-alkyl, phosphonium, alkylphosphonium containing C₁-C₄-alkyl, or guanidinium, and

where

Y⁻ is an anion selected from the group CAB⁻, PAP⁻, FAB⁻ and Im⁻,

where

CAB⁻ conforms to the general formula (II-1)



and

y1 ~~is denotes~~ 1, 2, 3 or 4,

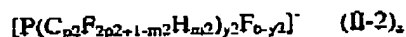
x1 ~~is denotes~~ 0, 1, 2 or 3, and

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R^0 ~~is denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R^0 may be hydrogen if y_1 is >2 ,

where

FAP' conforms to ~~the general~~ formula (II-2)



with

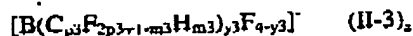
p_2 ~~is~~ 1 to 20,

m_2 ~~is~~ 0, 1, 2 or 3, and

y_2 ~~is~~ 1, 2, 3 or 4,

where

FAB' conforms to ~~the general~~ formula (II-3)



with

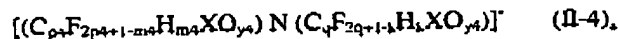
p_3 ~~is~~ 1 to 20,

m_3 ~~is~~ 0, 1, 2 or 3, and

y_3 ~~is~~ 1, 2, 3 or 4,

where

Im' conforms to ~~the general~~ formula (II-4)



and the variables

X ~~is denotes~~ carbon or sulfur,

p_4 ~~is denotes~~ 0 to 20 and $0 \leq m_4 \leq 2p_4+1$,

q ~~is denotes~~ 0 to 20 and $0 \leq k \leq 2q+1$,

y_4 ~~is denotes~~ 1 or 2,

where

m_4 ~~is~~ $[[=]]$ 0 if p_4 ~~is~~ $[[=]]$ 0, and

k ~~is~~ $[[=]]$ 0 if q ~~is~~ $[[=]]$ 0,

where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, and the resultant alkylene chain may in turn be partially or fully substituted by F;

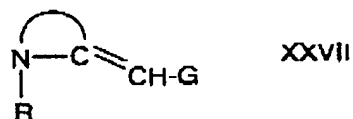
with the provisos that

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if X is sulfur, y4 ~~is~~ denotes 2, and if X is carbon, y4 ~~is~~ denotes 1 and p4 or q \geq 1,
 and ~~where the carbon atoms of the alkyl chain of the formula II 4 may be bonded to~~
~~one another by single bonds, where the resultant alkylene chain may in turn be partially or~~
~~fully substituted by F.~~

35. (Currently Amended): A process ~~Process~~ for the preparation of a compound
~~compounds of the formula XXIV~~ according to Claim 33, with the restriction that n in formula
 XXIV ~~is~~ denotes 0, characterised in that said process comprising:

reacting a compound of the formula XXVII



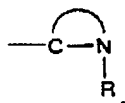
in which

G ~~is~~ denotes hydrogen, alkyl, alkenyl, aryl, heteroaryl, N=C(R)₂, CONHaryl,
 C(O)aryl, or CONHalkyl, and

R ~~is~~ denotes alkyl, alkenyl, cycloalkyl, aryl or heteroaryl,

and

the ring system, represented by



~~is~~ denotes a nitrogen-containing unsaturated mono-, bi- or tricyclic heterocycle having
 5 to 13 ring members, which optionally further contains ~~may furthermore contain~~ 1, 2 or 3 N
 and/or 1 or 2 S or O atoms, and in which the heterocyclic radical is optionally ~~may be~~ mono-
 or polysubstituted by Z,

Z ~~is~~ denotes hydrogen, alkyl, NO₂, F, Cl, Br, I, OH, COOH, Oalkyl, SCN, SCF₃,
 COOalkyl, CH₂-COOalkyl, NH₂, NHalkyl, or N(alkyl)₂.

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is reacted

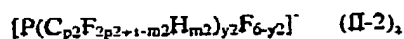
with a compound HY,

where

Y⁻ is an anion selected from the group FAP⁻, FAB⁻ and or Im⁻,

where

FAP⁻ conforms to the ~~general~~ formula (II-2)



with

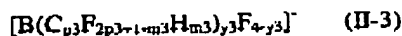
p2 is 1 to 20,

m2 is 0, 1, 2 or 3, and

y2 is 1, 2, 3 or 4,

where

FAB⁻ conforms to the ~~general~~ formula (II-3)



with

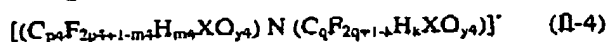
p3 is 1 to 20,

m3 is 0, 1, 2 or 3, and

y3 is 1, 2, 3 or 4,

where

Im⁻ conforms to the ~~general~~ formula (II-4)



and the variables

X is denotes carbon or sulfur,

p4 is denotes 0 to 20 and $0 \leq m4 \leq 2p4+1$,

q is denotes 0 to 20 and $0 \leq k \leq 2q+1$,

y4 is denotes 1 or 2,

where

m4 is is is is 0 if p4 is is is is 0, and

k is is is is 0 if q is is is is 0,

where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one

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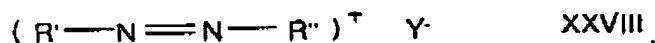
another by single bonds, and the resultant alkylene chain may in turn be partially or fully substituted by F,

with the ~~proviso~~ provisos that

if X is sulfur, y4 ~~is denotes~~ 2, and if X is carbon, y4 ~~is denotes~~ 1 and p4 or q \geq 1;

~~and where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.~~

36. (Currently Amended): ~~A process~~ Process for the preparation of an azo dyes according to Claim 6, ~~where the~~ wherein said azo dye conforms to the formula XXVIII



where

R' and R'' ~~are each denotes~~ are each aryl or heteroaryl and one of the two aromatic nuclei is positively charged, ~~and~~

~~where~~

Y' is an anion selected from the group CAB⁻, FAP⁻, FAB⁻ ~~and~~ or Im⁻,

~~where~~

CAB⁻ conforms to the ~~general~~ formula (II-1)



~~and~~

y1 ~~is denotes~~ 1, 2, 3 or 4,

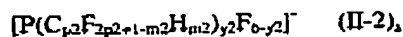
x1 ~~is denotes~~ 0, 1, 2 or 3 and

R⁰ ~~is denotes~~ alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-

aryl, with the condition that R⁰ may be hydrogen if y1 is >2 ,

~~where~~

FAP⁻ conforms to the ~~general~~ formula (II-2)



~~with~~

p2 ~~[[.]]~~ is 1 to 20,

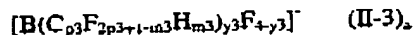
m2 ~~[[.]]~~ is 0, 1, 2 or 3, and

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y2 ~~[[=]]~~ is 1, 2, 3 or 4,

where

FAB' conforms to the general formula (II-3)



with

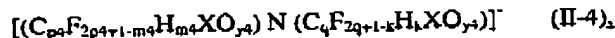
p3 is 1 to 20,

m3 is 0, 1, 2 or 3, and

y3 is 1, 2, 3 or 4,

where

Im' conforms to the general formula (II-4)



and the variables

X is denotes carbon or sulfur,

p4 is denotes 0 to 20 and $0 \leq m4 \leq 2p4+1$,

q is denotes 0 to 20 and $0 \leq k \leq 2q+1$,

y4 is denotes 1 or 2,

where

m4 is ~~[[=]]~~ 0 if p4 is ~~[[=]]~~ 0, and

k is ~~[[=]]~~ 0 if q is ~~[[=]]~~ 0,

where the carbon atoms of the alkyl chain of the formula II-4 may be bonded to one another by single bonds, and the resultant alkylene chain may in turn be partially or fully substituted by F.

said process comprising reacting ~~characterised in that~~ a compound of the formula

XXIX



where R' and Y' has one of the meaning indicated in the case of formula XXVIII,

~~is reacted~~

with an the aromatic cyclic or heterocyclic compound R''.

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37. (Currently Amended): A compound according to ~~Compounds of the formula~~
XXIX



in which

R' ~~is~~ denotes aryl or heteroaryl, and

where

Y^- is an anion selected from the group CAB^- , FAP^- , FAB^- and Im^- ,

where

CAB^- conforms to the general formula (II-1)



and

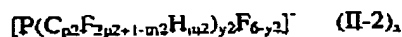
$y1$ ~~is~~ denotes 1, 2, 3 or 4,

$x1$ ~~is~~ denotes 0, 1, 2 or 3, and

R^0 ~~is~~ denotes alkyl, aryl, fluorinated alkyl, fluorinated aryl, cycloalkyl or alkyl-aryl, with the condition that R^0 may be hydrogen if $y1$ is >2 ,

where

FAP^- conforms to the general formula (II-2)



with

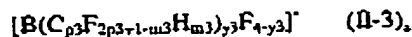
$p2$ ~~[[.]]~~ is 1 to 20,

$m2$ ~~[[.]]~~ is 0, 1, 2 or 3, and

$y2$ ~~[[.]]~~ is 1, 2, 3 or 4,

where

FAB^- conforms to the general formula (II-3)



with

$p3$ ~~is~~ 1 to 20,

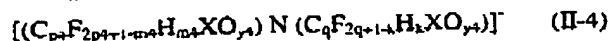
$m3$ ~~is~~ 0, 1, 2 or 3, and

$y3$ ~~is~~ 1, 2, 3 or 4,

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where

Im^- conforms to the general formula (II-4)



and the variables

X is denotes carbon or sulfur.

$p4$ is denotes 0 to 20 and $0 \leq m4 \leq 2p4+1$.

q is denotes 0 to 20 and $0 \leq k \leq 2q+1$.

$y4$ is denotes 1 or 2,

where

$m4$ is $[[=]]$ 0 if $p4$ is $[[=]]$ 0, and

k is $[[=]]$ 0 if q is $[[=]]$ 0,

where the carbon atoms of the alkyl chain of the formulae II-4 may be bonded to one another by single bonds, and wherein the resultant alkylene chain may in turn be partially or fully substituted by F;

with the proviso that

if X is sulfur, $y4$ is denotes 2, and if X is carbon, $y4$ is denotes 1 and $p4$ or $q \geq 1$;

and where the carbon atoms of the alkyl chain of the formulae II-4 may be bonded to one another by single bonds, where the resultant alkylene chain may in turn be partially or fully substituted by F.

38. (Currently Amended): In a method of Use of the dyes according to claim 1 for colouring plastics and plastic fibres, preparing for the preparation of flexographic printing inks, as ball-point pen pastes, or as stamp ink, for colouring leather and paper, in preparing cosmetic formulations in the paints industry, or coloring in biochemistry, biology, medicine, analytics or electronics, the improvement wherein a dye according to claim 1 is used for coloring.

39. (Currently Amended): In a method of using a dye Use of the dyes according to claim 1 in data acquisition systems, reprography, in ink microfilters, in photogalvanics, laser technology or the photo industry, the improvement wherein said dye is a dye according to

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claim 1.

40. (Currently Amended): In a method of using a dye Use of the dyes according to claim 1 for CD recorders, DVD recorders (DVD+R, DVD+RW), Bluray disc (BD-ROM, BD-R, BD-RE), computer to plate, laser filters, laser marking or photopolymerisation, the improvement wherein said dye is a dye according to claim 1.

41 (New): A dye according to Claim 28, wherein CAT⁺ is a cation of a polymethine dye.

42. (New): A dye according to Claim 28, wherein p2 is 1, 2, 3, 4, 5, 6, 7 or 8.

43. (New). A dye according to Claim 28, wherein p2 is 2, 3 or 4.

44. (New): A dye according to Claim 28, wherein Y⁻ is PF₃(C₂F₅)₃, PF₃(C₄F₉)₃, PF₃(C₃F₇)₃ or PF₄(C₂F₅)₂.

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